



## **Little Creek Reservoir Fisheries Management Report 2004**



This 947-acre reservoir was constructed in 1981 and is owned by the City of Newport News. The watershed is relatively small and the reservoir is regulated primarily by pumping water from Chickahominy Reservoir. Occasionally, water is also pumped in from Diascund Reservoir. Water from Little Creek is then pumped to the terminal reservoirs of the Newport News water supply system. In recent years the pumping regime has changed such that water is no longer routinely pumped out of Little Creek, but is taken directly from Chickahominy Reservoir. As a consequence, this reservoir does not need to be replenished as frequently. It is only during dry summers that water from Little Creek is drawn upon. The reservoir is then replenished in the winter using water derived mainly from the Chickahominy. 2002 and 2001 have been particularly dry years and the reservoir has been drawn upon heavily resulting in the water level being down by more than 6' in the fall of 2001 and by more than 12' in the fall of 2002. Such changes in level will have had some effect on the fishery.

The fish population was sampled in May of 2003 using an electrofishing boat. This method of sampling the shoreline relies on using an electric current to stun the fish, which can then be picked up, assessed and released. In addition, gill netting was carried out in the fall of 2003 to sample that component of the fishery, which is more orientated towards deeper water habitats.

This survey was carried out as a follow up to the one in 2002, primarily to continue with the monitoring of the striped bass population and its forage base (blueback herring and gizzard shad). In 2001 anglers started to notice that some of the stripers they were catching looked thin. Our surveys in 2001 and 2002 confirmed those observations. Our records show that many of the stripers over 20 inches in length were thin. The explanations for this may include a reduction in abundance of prey or poor accessibility to prey (in the restricted striper habitat that develops in the summer months).

The stripers we caught in 2003 appeared to be much more healthy than those collected in the two previous surveys. We can quantify this by looking at the index of Relative Weight. This can tell us if a fish is underweight or overweight. The optimum value is 100. In 2003, stripers over 20 inches in length had a relative weight of 81 compared to values of 64 and 63 recorded in 2001 (fall) and 2002 (spring) respectively. By comparison, there have been no problems with the health of stripers in Waller Mill Reservoir. In fact, in 2003 the relative weight of stripers over 20 inches in length in Waller Mill was also 81. These results are encouraging and could indicate that a recovery is in progress at Little Creek.

The 6 to 7-inch blueback herring recorded during the latest survey are an ideal size for those larger stripers. Unfortunately, there has not been any evidence of young gizzard shad in the samples taken over recent years that would supplement the diet of the stripers. All the gizzard shad we caught were over 12 inches in length (and went up to 17 inches). These are beyond the size preference for most stripers.

The largemouth bass population structure was reasonable (as indicated by structural indices), although the catch rate for larger fish was a little disappointing as has been the case in most of the previous surveys. To some extent it is felt that sampling difficulties (clear water, steep banks and limited structure) results in an underestimation of the status of the bass population in Little Creek. The largest bass caught in our survey was just over 19 inches in length weighed nearly 4 lbs.

The bluegill population is poor and needs developing. It was heavily dominated by smaller fish (less than 6 inches in length) resulting in low values for structural indices. The redear sunfish population characteristics were fair, but larger fish were less abundant compared to the 2002 data.

Chain pickerel and black crappie samples were pretty decent with the former reaching lengths of 23 inches and the latter up to 14 inches.

According to trophy fish citations issued by the Department's Angler Recognition Program this reservoir ranked 4<sup>th</sup> in the state for yellow perch and black crappie, 6<sup>th</sup> for striped bass, and 10<sup>th</sup> for sunfish. Single citations were issued for each of the following species: largemouth bass, blue catfish, chain pickerel and walleye.

Walleye are no longer stocked in this lake, although there is still a remnant population. Few anglers targeted walleye (5.7%) and very few were caught during the 1999 creel survey. The low catch rate is due to a combination of factors. Firstly, many anglers are unfamiliar with the best techniques to catch walleye and secondly, one of the best times to catch them is considered to be at night and this is when the reservoir is closed to fishing. As a result of this, walleye stocking was terminated in 2000. A statewide walleye project is being conducted by the Fisheries Division to examine how best to develop walleye fishing. The results of this study should help to determine if walleye stocking in Little Creek is feasible in the future.

The facilities at Little Creek include a boat ramp, 140' fishing pier, picnic tables and grills. Boats, canoes, paddleboats, trolling motors and batteries can be rented from the concessionaire. A second peninsula covering about 20 acres has recently been opened with plans to add a nature trail, play area, picnic tables and grills.

To get to Little Creek take Route 60 to Toano and turn onto Route 610 (Old Forge Road). Turn left on to Lakeview Drive and take the second park entrance on the right. For further information call the Little Creek office at 757 566 1702 ([www.james-city.va.us](http://www.james-city.va.us).) or the Department of Game and Inland Fisheries at 757 253 4172 ([www.dgif.virginia.gov](http://www.dgif.virginia.gov)).